

REMARKS

This document is a response to the Office Action mailed May 19, 2009.

Claims 1, 6-12, 15, 19, 21, 22, and 24-26 are pending in this application. Claims 22 and 24-26 stand withdrawn. Claim 6 has been amended as supported by FIGS. 1, 3, 4, 5, 6, 17, and paragraph [0030], for example. Claim 8 has been amended as supported by FIGS. 1, 3-5, 13, 14, and paragraph [0032], for example. Claim 15 has been amended as supported by FIGS. 1, 3, 5-8, 13, 14, and paragraph [0028], for example. Claim 21 has been amended as supported by FIGS. 1, 3, 4, 5, 6, 17, and paragraph [0030], for example. New claims 27-31 have been added, and are supported by FIGS. 1, 3-8, 13-14 and paragraphs [0028], [0030, and [0032]], for example. No new matter has been added.

Applicant's amendment of these claims should not be taken as an indication that Applicant agrees that the standing claim rejections are proper. Applicant respectfully requests reconsideration based on the amended claims, as well as the following discussion.

112 rejection

Claims 8 and 9 stand rejected under 35 U.S.C. § 112, first paragraph, as claiming subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the art that the inventor(s) had possession of the claimed invention at the time the application was filed.

Applicant respectfully submits that the amendment to claim 8 overcomes the Examiner's rejection. Accordingly, Applicant respectfully requests that the Examiner withdraw the rejection based on 35 U.S.C. § 112, and reconsider claims 8 and 9.

102(b) Rejection

Claims 15, 19, and 21 stand rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 6,293,961 to Schwartz et al. ("Schwartz"). To the extent that this rejection may be applied against the amended claims, it is respectfully traversed.

The Examiner is respectfully requested to note, in FIGS. 1, 2, and 15, reproduced below, that the claimed suture anchor is designed so that "sutures can slip through the aperture 30 to permit their initial placement in the aperture 30 and subsequent tightening" (Present Application, paragraph [0029]). In other words, the sutures slip transversely through a "transverse suture receiving aperture interposed between the first body members" (Present Application, claim 15). The sutures can enter from a side and exit straight through on the opposite side.

When the anchor is in an open position, the suture is free-sliding in either direction along its axis, and a transversely oriented suture section is contained within the transverse aperture by a top surface 40 (Fig. 1) portion of the transverse aperture. In other words, the transversely oriented suture section contained within the transverse aperture is prevented from lifting out or moving out of the transverse aperture in a proximal longitudinal direction by the top surface 40 portion. The top surface 40 portion of the anchor is at least one of the gripping portions extending over and beyond the transverse aperture while the anchor is in the open position, as shown in all of the figures.

After a section of at least one suture is positioned transversely in the aperture, then the anchor can be put into the bone hole, wherein transverse body members being in sliding contact move from the open position to the closed position. In the closed position, the aperture is deformed to grip the suture and lock the suture in place.

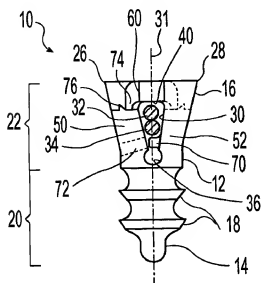


Fig. 1

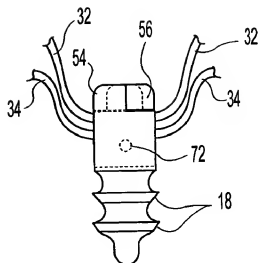


Fig. 2

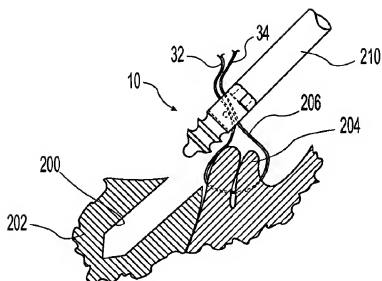


Fig. 15

Schwartz discloses an anchor 20 that is merely intended to replace a knot in a suture tied around soft tissue. To serve this purpose, as shown in FIG. 1 below, Schwartz is designed to thread a suture longitudinally an entire distance through the anchor 20 and into or through tissue against which the anchor abuts or in which the anchor is embedded.

Harmonious with threading a suture the entire longitudinal length of the anchor 20, and as seen in FIG. 9 below, the anchor 20 of Schwartz necessarily does not include any form of top surface portion on the of aperture 30 formed there through. Therefore, Schwartz fails to disclose or suggest a top surface portion of a transverse aperture enclosing a portion of a transverse aperture in the proximal direction, as recited in amended claim 15. Further, Schwartz fails to disclose or suggest any form of top surface portion, which is at least one gripping portion extending over and beyond the transverse aperture while the suture anchor is in the open position so a transversely oriented section of each suture is prevented from exiting the aperture longitudinally, as recited in amended claim 15.

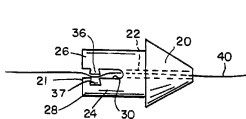


FIG. 9

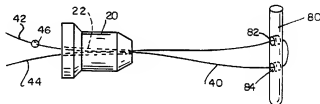
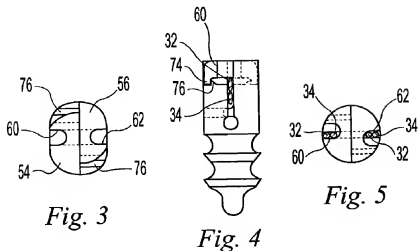


FIG. 1

Furthermore, Schwartz fails to disclose or suggest a locking mechanism comprising transverse body members being in sliding contact from the open position to the closed position, as recited in amended claim 15. The Examiner is respectfully requested to note that FIGS. 3 and 5 from the present application below illustrate the sliding contact between the transverse body members from the open to closed positions. The two members 54 and 56 slide in opposite directions from the open to closed positions, and they are in contact along the illustrated surface.

With Schwartz, on the other hand, the moving surfaces of groove 37 and tooth 36 are not shaped for sliding movement. Further, the moving surfaces of the groove 37 and the tooth 36 in Swartz are not in contact in the open position. Rather, the tooth 36 and groove 37 of Swartz bend toward one another on a radius as the second portions 26 and 28 flex.

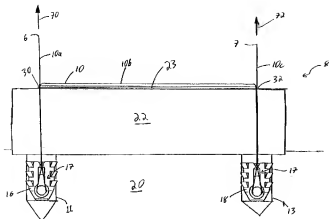


For the foregoing reasons, Applicant respectfully submits that the suture anchor claimed in amended independent Claim 15 is neither anticipated nor rendered obvious by the prior art and is in allowable condition. Claims 19 and 21 are also believed to be allowable in light of their dependence on allowable base claim 15. Accordingly, reconsideration and withdrawal of the present rejection are requested.

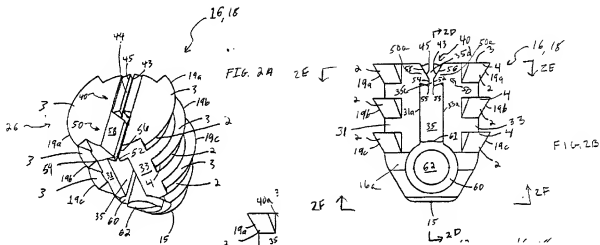
103(a) Rejection

Claims 1 and 6-12 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent Application Publication 2003/0088272 to Smith ("Smith") in view of Schwartz. This rejection is respectfully traversed.

Smith discloses a tissue repair system. As illustrated in FIG. 1 shown below, two anchors are necessary to make the system work properly.



In each anchor, a suture enters through an aperture at proximal faces 56, 58, as shown in FIG. 2A and 2B below. The suture loops around winding post 62 and exits at the aperture at proximal faces 42, 44. The aperture is designed so that in one direction the suture can be pulled to move, but in the other direction, it will be secured from moving. Smith discloses, in paragraph [0052], that "[m]ovement of suture 10 through sloped portions 35b, 35d of cleats 40, 50 acts to compress the suture such that the suture can pass through narrower portions 35a, 35c, respectively, when pulled in the direction of the arrow 70 (FIG. 1)." Smith further discloses, in paragraph [0052], that "loosening of suture 10 (passage of suture 10 through the cleats in a direction opposite arrow 70) is limited by opposing edges 43, 45, and 53, 55 catching on uncompressed suture 10 such that the suture does not pass through the cleats. In effect, cleats 40, 50 form a one-way passage." As seen in FIG. 1 above, and as explained in the specification, the suture can be pulled at each end in the direction of arrows 70 and 72 in order to tighten the suture between each anchor. Allowing the suture to be pulled in one direction, while securing it from moving in the other direction is vital to the functionality of the Smith tissue repair system. Each anchor can be fully embedded, or otherwise positioned inaccessibly. Then the suture can be tightened on each end 6, 7 merely by pulling each end 6, 7.



The Examiner alleges that Smith discloses the claimed invention except for a suture being "prevented from moving in any direction when the gripping portions are in a closed position", and that Schwartz combines with Smith to teach that limitation. Respectfully, the Applicant disagrees.

It would not have been obvious to a person having ordinary skill in the art to provide Smith with the locking mechanism of Schwartz that would prevent the suture from moving in any direction because doing so would defeat the function and operability of Smith. "If proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification." MPEP § 2143.01, *citing In re Gordon*, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984). The tissue repair system of Smith relies on the ability to tighten the suture by pulling each end of the suture and having an anchor restrain the suture in one direction only, as illustrated by FIG. 1 above. Adding the two-way locking mechanism of Schwartz would render Smith unsatisfactory for its intended purpose.

Furthermore, Smith does not teach each of the other elements of the claimed invention, as the Examiner states. Smith does not teach "a proximal body portion being responsive to insertion into the bone hole to move the gripping portions from the open to the closed position as the suture anchor is pushed into the bone hole, wherein the proximal

body portion has a maximum transverse dimension in the open position, the proximal body portion has a smaller maximum transverse position in the closed position, and the anchoring member has a maximum transverse dimension smaller than the maximum transverse dimension of the proximal body portion in the open position.” Simply put, the aperture of Smith does not move. The opposing edges 43, 45, and the distal faces 52, 54 are spaced appropriately with respect to the size of the suture so that, being non-moving, suture is restricted from moving in one direction and allowed to move in the other direction.

Schwartz does not overcome these deficiencies of Smith. In particular, Schwartz also does not disclose or suggest “a proximal body portion being responsive to insertion into the bone hole to move the gripping portions from the open to the closed position as the suture anchor is pushed into the bone hole, wherein the proximal body portion has a maximum transverse dimension in the open position, the proximal body portion has a smaller maximum transverse position in the closed position, and the anchoring member has a maximum transverse dimension smaller than the maximum transverse dimension of the proximal body portion in the open position.”

Therefore, Claim 1 would not have been obvious to one skilled in the art provided with the disclosures of Smith and Schwartz since neither Smith nor Schwartz, alone or in combination, teach all the elements of claim 1. Accordingly, Applicant submits that claim 1 is in allowable condition. Applicant submits that claims 6-12 are allowable at least for their dependence on allowable base claim 1.

With respect to the claim rejections argued by the Applicant herein, the Applicant's selective treatment and emphasis of certain claims in the application should not be taken as an indication that the Applicant believes the Examiner's unaddressed claim rejections are otherwise sufficient. The Applicant expressly reserves the right to present arguments traversing the propriety of the unaddressed claim rejections later in the prosecution of this or another application.

Further with respect to the claim rejections argued by the Applicant herein, while the Applicant may have highlighted a particular claim element of a claim for purposes of demonstrating insufficiency of the examination on the part of the Examiner, the Applicant's highlighting of a particular claim element for such purpose should not be taken to indicate that the Applicant has asserted an argument in support of patentability that a particular claim element constitutes the sole basis for patentability out of the context of the various combinations of elements of the claim or claims in which it is present. The Applicant maintains the right here forward to assert that each claim is patentable by reason of any patentable combination recited therein.

In view of the above amendments and arguments, applicant believes the pending application is in condition for allowance. Applicant believes no fee is due with this response. However, if a fee is due, please charge our Deposit Account No. 50-0289, under Order No. 1559-011 from which the undersigned is authorized to draw.

If the Examiner believes that contact with the Applicants' attorney would be advantageous toward the disposition of this case, he is herein requested to call Applicants' attorney at the telephone noted below.

Dated: August 14, 2009

Respectfully submitted,

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